

Application No. 09/751,762  
Amendment dated May 4, 2005  
Reply to Office Action of January 4, 2005

Atty. Docket No. 2207/10121

### REMARKS/ARGUMENTS

Claims 1-21 are pending in the application. Reconsideration in view the following remarks is respectfully requested. The Office Action also rejects claims 1-21 under 35 U.S.C. 103(a) as being unpatentable over Parady (U.S. Patent No. 5,933,627) in view of Hennessy (Computer Organization and Design).

Applicants respectfully submit that none of the cited sections of Parady teach, suggest or reflect at least “[a] method of handling operations in a multi-threaded processing system, comprising determining if a stalled operation of a first thread is due to a loading of data from a memory device *and flushing an instruction from said first thread from a pipeline of said processing system when data is to be loaded from said memory device before executing said instruction*” [as in claim 1].

Applicants would like to reiterate their concurrence with the current Office Action’s assertion on page 2, and similar assertions on pages 5, 8, and 10 that Parady *does not* disclose flushing an instruction from said first thread from a pipeline of said processing system when data is to be loaded from said memory device before executing such instruction.

However, on page 14 the Office Action proceeds to argue that Parady teaches, suggest and discloses “...flushing an instruction from said first thread from a pipeline of said processing system when data is to be loaded from said memory device before executing said instruction” (e.g., as described in the embodiment of claim 1). Applicants are confused.

Nevertheless, Applicants will show that the Office Action’s original position, that Parady does not disclose flushing an instruction from said first thread from a pipeline of said processing system when data is to be loaded from said memory device before executing said instruction” was the correct one.

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The current Office Action states that Parady has shown in column 4, lines 45-51 an embodiment where control is immediately transferred back to the thread that executed a load when the data is ready before other threads can advance. This means that an instruction about to be dispatched would have been flushed on a switch to a critical thread because data is to be loaded for execution of an instruction in the critical thread before the flushed instruction can execute.

Applicants respectfully disagree. Column 4, lines 45-51 state

Alternately, a particular thread could be identified as a critical thread, and generate an interrupt as soon as the memory access is completed. The returned data from the load must be provided to the appropriate register for the thread which requested it. This could be done by using separate load buffers for each thread, or by storing a two bit tag in the load buffer indicating the appropriate thread.

Therefore, the Parady reference merely discloses a critical thread's ability to generate an interrupt after a memory access has been completed. The returned data is then sent to the appropriate register. This section does not teach, suggest or disclose flushing an instruction from said first thread from a pipeline of said processing system when data is to be loaded from said memory device before executing said instruction, affirming the Office Action's initial position pertaining to Paraday. Further, regardless of the Office Actions assertion of what Parady reference really "means", it is very clear that the Paraday reference itself does not disclose the claimed limitations. Such design characteristics as described in the embodiment of claim 1 and argued above cannot be supplied by mere implication. Therefore, since each and every limitations is not found in the cited references, the cited references cannot be combined to adequately form the basis of a proper 35 U.S.C. §103(a) rejection of independent claim 1. Independent claims 5, 10, and 16 contain substantively similar limitations and therefore are also allowable for similar reasons. Claims 2-4, 6-9, 11-15 and 17-21 depend from allowable independent claims 1, 5, 10 and 16, and therefore are in

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condition for allowance as well. Furthermore, Applicants would like to reiterate it argument that the two references cannot be combined without the use of impermissible hindsight reasoning.

For at least the above reasons, Applicants respectfully submit that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

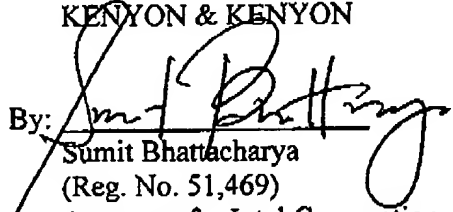
The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 11-0600.

Respectfully submitted,

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